

Christian B Koch

List of Publications by Year in descending order

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59
papers

2,864
citations

201385

27
h-index

168136

53
g-index

60
all docs

60
docs citations

60
times ranked

3988
citing authors

#	ARTICLE	IF	CITATIONS
1	Magnetic properties of hematite nanoparticles. <i>Physical Review B</i> , 2000, 61, 6826-6838.	1.1	344
2	Abiotic Nitrate Reduction to Ammonium: A Key Role of Green Rust. <i>Environmental Science & Technology</i> , 1996, 30, 2053-2056.	4.6	301
3	Magnetic dynamics of weakly and strongly interacting hematite nanoparticles. <i>Physical Review B</i> , 2000, 62, 1124-1135.	1.1	197
4	Kinetics of nitrate reduction by green rusts—effects of interlayer anion and Fe(II):Fe(III) ratio. <i>Applied Clay Science</i> , 2001, 18, 81-91.	2.6	166
5	Quantitative Characterization of Gold Nanoparticles by Field-Flow Fractionation Coupled Online with Light Scattering Detection and Inductively Coupled Plasma Mass Spectrometry. <i>Analytical Chemistry</i> , 2011, 83, 2461-2468.	3.2	164
6	Genotype-Specific Spatial Distribution of Starch Molecules in the Starch Granule: A Combined CLSM and SEM Approach. <i>Biomacromolecules</i> , 2006, 7, 2310-2320.	2.6	139
7	Mobilization of arsenic and iron from Red River floodplain sediments, Vietnam. <i>Geochimica Et Cosmochimica Acta</i> , 2010, 74, 3367-3381.	1.6	119
8	Synthesis and characterization of pyroaurite. <i>Applied Clay Science</i> , 1995, 10, 5-19.	2.6	83
9	Poly Lactide-layered double hydroxide nanocomposites via in situ polymerization of L-lactide. <i>Polymer Degradation and Stability</i> , 2010, 95, 2563-2573.	2.7	78
10	Sorption and Desorption of Arsenic to Ferrihydrite in a Sand Filter. <i>Environmental Science & Technology</i> , 2005, 39, 8045-8051.	4.6	73
11	Conditions for biological precipitation of iron by <i>Gallionella ferruginea</i> in a slightly polluted ground water. <i>Applied Geochemistry</i> , 2001, 16, 1129-1137.	1.4	68
12	Vibrational, X-ray absorption, and Mössbauer spectra of sulfate minerals from the weathered massive sulfide deposit at Iron Mountain, California. <i>Chemical Geology</i> , 2011, 284, 296-305.	1.4	65
13	Melt processing of poly(L-lactic acid) in the presence of organomodified anionic or cationic clays. <i>Journal of Applied Polymer Science</i> , 2011, 122, 112-125.	1.3	64
14	Vivianite Precipitation and Phosphate Sorption following Iron Reduction in Anoxic Soils. <i>Journal of Environmental Quality</i> , 2012, 41, 938-949.	1.0	63
15	Synthesis and Properties of Hexacyanoferrate Interlayered in Hydrotalcite. I. Hexacyanoferrate(II). <i>Clays and Clay Minerals</i> , 1994, 42, 170-179.	0.6	58
16	Arsenic in Holocene aquifers of the Red River floodplain, Vietnam: Effects of sediment-water interactions, sediment burial age and groundwater residence time. <i>Geochimica Et Cosmochimica Acta</i> , 2018, 225, 192-209.	1.6	53
17	Movement of pendimethalin, ioxynil and soil particles to field drainage tiles. <i>Pest Management Science</i> , 2003, 59, 85-96.	1.7	52
18	Synthesis and Characterization of Cobalt(II)-Iron(III) Hydroxide Carbonate, a Layered Double Hydroxide Belonging to the Pyroaurite Group. <i>Journal of Solid State Chemistry</i> , 1994, 113, 46-53.	1.4	50

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19	Effects of Thermal Treatment on Mineralogy and Heavy Metal Behavior in Iron Oxide Stabilized Air Pollution Control Residues. <i>Environmental Science & Technology</i> , 2000, 34, 4620-4627.	4.6	44
20	Effects of temperature on rates and mineral products of microbial Fe(II) oxidation by <i>Leptothrix cholodnii</i> at microaerobic conditions. <i>Geochimica Et Cosmochimica Acta</i> , 2013, 108, 107-124.	1.6	42
21	Composite Films of Arabinoxylan and Fibrous Sepiolite: Morphological, Mechanical, and Barrier Properties. <i>ACS Applied Materials & Interfaces</i> , 2012, 4, 3378-3386.	4.0	40
22	Efficient Dechlorination of Carbon Tetrachloride by Hydrophobic Green Rust Intercalated with Dodecanoate Anions. <i>Environmental Science & Technology</i> , 2012, 46, 3390-3397.	4.6	37
23	Properties of Water-Dispersible Colloids from Macropore Deposits and Bulk Horizons of an Agrudalf. <i>Soil Science Society of America Journal</i> , 2004, 68, 1844-1852.	1.2	36
24	Intercalation of linear C ₉ -C ₁₆ carboxylates in layered Fe ^{II} -Fe ^{III} -hydroxides (green rust) via ion exchange. <i>Applied Clay Science</i> , 2010, 48, 334-341.	2.6	32
25	Hygroscopic growth and CCN activity of HULIS from different environments. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	32
26	Low-temperature magnetic anisotropy in micas and chlorite. <i>Tectonophysics</i> , 2014, 629, 63-74.	0.9	29
27	Multiproxy analysis of a new terrestrial and a marine Cretaceous-Paleogene (K-Pg) boundary site from New Zealand. <i>Geochimica Et Cosmochimica Acta</i> , 2011, 75, 657-672.	1.6	28
28	Inhibition of microbial trichloroethylene dechlorination by Fe (III) reduction depends on Fe mineralogy: A batch study using the bioaugmentation culture KB-1. <i>Water Research</i> , 2013, 47, 2543-2554.	5.3	26
29	Oxidation of Dodecanoate Intercalated Iron(II)-Iron(III) Layered Double Hydroxide to Form 2D Iron(III) (Hydr)oxide Layers. <i>European Journal of Inorganic Chemistry</i> , 2013, 2013, 5718-5727.	1.0	24
30	Nano particles as the primary cause for long-term sunlight suppression at high southern latitudes following the Chicxulub impact - evidence from ejecta deposits in Belize and Mexico. <i>Gondwana Research</i> , 2015, 27, 1079-1088.	3.0	23
31	Iron oxides and smectites in sediments from the Atlantis II Deep, Red Sea. <i>European Journal of Mineralogy</i> , 1998, 10, 953-968.	0.4	23
32	One-pot synthesis and characterization of Fe ^{II} -Fe ^{III} hydroxide (green rust) intercalated with C ₉ -C ₁₄ linear alkyl carboxylates. <i>Applied Clay Science</i> , 2010, 50, 512-519.	2.6	22
33	Magnetic anisotropy in natural amphibole crystals. <i>American Mineralogist</i> , 2015, 100, 1940-1951.	0.9	22
34	Magnetic anisotropy in clinopyroxene and orthopyroxene single crystals. <i>Journal of Geophysical Research: Solid Earth</i> , 2015, 120, 1431-1451.	1.4	21
35	The Standard Gibbs Energy of Formation of Fe(II)Fe(III) Hydroxide Sulfate Green Rust. <i>Clays and Clay Minerals</i> , 2008, 56, 633-644.	0.6	20
36	Thermal behavior of chlorites of the clinocllore-chamosite solid solution series: Oxidation of structural iron, hydrogen release and dehydroxylation. <i>Applied Clay Science</i> , 2016, 132-133, 626-634.	2.6	20

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37	Double bonus: surfactant-assisted biomass pelleting benefits both the pelleting process and subsequent enzymatic saccharification of the pretreated pellets. <i>Green Chemistry</i> , 2021, 23, 1050-1061.	4.6	18
38	Synthesis and characterization of laurate-intercalated Mg ²⁺ /Al layered double hydroxide prepared by coprecipitation. <i>Applied Clay Science</i> , 2012, 65-66, 143-151.	2.6	16
39	A contribution to the crystal chemistry of the voltaite group: solid solutions, Mössbauer and infrared spectra, and anomalous anisotropy. <i>Mineralogy and Petrology</i> , 2013, 107, 221-233.	0.4	16
40	Lepidocrocite in Hydrothermal Sediment of the Atlantis II and Thetis Deeps, Red Sea. <i>Clays and Clay Minerals</i> , 2002, 50, 186-197.	0.6	15
41	Si-associated Goethite in Hydrothermal Sediments of the Atlantis II and Thetis Deeps, Red Sea. <i>Clays and Clay Minerals</i> , 2004, 52, 115-129.	0.6	15
42	Thermodynamic properties of ferrioxhyte (Fe ²⁺ -FeOOH). <i>Clays and Clay Minerals</i> , 2008, 56, 526-530.	0.6	15
43	Thermodynamic properties of tooeelite, Fe ³⁺ (As ³⁺ O ₃) ₄ (SO ₄)(OH) ₄ ·4H ₂ O. <i>Chemie Der Erde</i> , 2016, 76, 419-428.	0.8	14
44	Degradation of l-poly lactide during melt processing with layered double hydroxides. <i>Polymer Degradation and Stability</i> , 2012, 97, 2002-2009.	2.7	13
45	Investigation of a Monturaqui Impactite by Means of Bi-Modal X-ray and Neutron Tomography. <i>Journal of Imaging</i> , 2018, 4, 72.	1.7	12
46	WEATHERING INTENSITY CONTROLLING SUSTAINABILITY OF ULTISOLS UNDER SHIFTING CULTIVATION IN THE CHITTAGONG HILL TRACTS OF BANGLADESH. <i>Soil Science</i> , 2004, 169, 663-674.	0.9	11
47	Interactions between goethite particles subjected to heat treatment. <i>Journal of Physics Condensed Matter</i> , 2008, 20, 135215.	0.7	11
48	Characteristics and genesis of pisolitic soil layers in a tropical moist semi-deciduous forest of Ghana. <i>Geoderma</i> , 2007, 141, 130-138.	2.3	9
49	Magnetic Titanium-Pillared Clays (Ti-M-PILC): Magnetic Studies and Mössbauer Spectroscopy. <i>Clays and Clay Minerals</i> , 2009, 57, 433-443.	0.6	8
50	Kinetics of solution crystal growth of strengite, FePO ₄ ·2H ₂ O. <i>Journal of Crystal Growth</i> , 2018, 482, 9-14.	0.7	8
51	Iron(IV) in layered Cobalt-Iron Oxide Formed by Electrochemical Oxidation. <i>Inorganic Chemistry</i> , 1994, 33, 5363-5365.	1.9	4
52	Composition of characteristic soils on the raised atoll Bellona, Solomon Islands. <i>Geoderma</i> , 2012, 170, 186-194.	2.3	4
53	Groundwater transport of Cu in laterites in Zambia. <i>Applied Geochemistry</i> , 2015, 56, 94-102.	1.4	4
54	Comprehensive Geophysical Study at Wabar Crater, Rub Al-Khali Desert, Saudi Arabia. <i>Earth and Space Science</i> , 2021, 8, e2020EA001432.	1.1	4

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55	The Role of the Nature of Pillars in the Structural and Magnetic Properties of Magnetic Pillared Clays. <i>Clays and Clay Minerals</i> , 2011, 59, 547-559.	0.6	3
56	Crystal chemistry, Mössbauer spectroscopy, and thermodynamic properties of botryogen. <i>Neues Jahrbuch Fur Mineralogie, Abhandlungen</i> , 2016, 193, 147-159.	0.1	2
57	A high temperature Mössbauer study of nanocrystalline Fe _{73.5} Cu ₁ Nb ₃ B ₇ Si _{15.5} . <i>Physica Scripta</i> , 1995, 52, 113-115.	1.2	1
58	Characterization and comparison of iron oxyhydroxide precipitates from biotic and abiotic groundwater treatments. <i>Journal of Water Supply: Research and Technology - AQUA</i> , 2017, 66, 96-104.	0.6	1
59	Provenance of pottery determined by soil physicochemical and chemometric methods: A case study from Frederiksgave, Ghana. <i>Geografisk Tidsskrift</i> , 2009, 109, 69-79.	0.4	0